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FIL	ING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.	
12/04/2001		Preeti Lal	PF-0709 USN	6996	
7590	05/13/2003				
Incyte Genomics Inc			EXAMINER		
			CARLSON,	CARLSON, KAREN C	
Palo Alto, CA 95304			ART UNIT	PAPER NUMBER	
			1653	9	
			DATE MAILED: 05/13/2003	/	
	7590 nics Inc nent rive	7590 05/13/2003 nics Inc nent rive	12/04/2001 Preeti Lal 7590 05/13/2003 nics Inc nent rive	12/04/2001 Preeti Lal PF-0709 USN 7590 05/13/2003 nics Inc nent rive 95304 ART UNIT	

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 07-01)

	Application No.	Applicant(s)				
	10/009,328	LAL ET AL.				
Office Action Summary	Examiner	Art Unit				
	Karen Cochrane Carlson, Ph.D.	1653				
The MAILING DATE f this communication appears on the cover sheet with the correspondence address Period for Reply						
A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION. - Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication. - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely. - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication. - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). - Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b). Status						
1) Responsive to communication(s) filed on 19 F	<u>ebruary 2003</u> .					
2a)☐ This action is FINAL . 2b)☐ Thi	This action is FINAL . 2b) This action is non-final.					
3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11, 453 O.G. 213.						
Disposition of Claims						
4) Claim(s) 1-11,13,15-17,19,22,26,27 and 231 is/are pending in the application.						
4a) Of the above claim(s) is/are withdrawn from consideration.						
5) Claim(s) is/are allowed.						
6) Claim(s) is/are rejected.						
7) Claim(s) is/are objected to.						
8) Claim(s) <u>1-11, 13, 15-17, 19, 22, 26, 27, and 231</u> are subject to restriction and/or election requirement.						
Application Papers	_					
9) The specification is objected to by the Examiner.						
10) The drawing(s) filed on is/are: a) accepted or b) objected to by the Examiner.						
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a). 11) The proposed drawing correction filed on is: a) approved b) disapproved by the Examiner.						
If approved, corrected drawings are required in reply to this Office action.						
12) ☐ The oath or declaration is objected to by the Examiner.						
Priority under 35 U.S.C. §§ 119 and 120						
13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).						
a) ☐ All *b) ☐ Some * c) ☐ None of:						
1. Certified copies of the priority documents have been received.						
2. Certified copies of the priority documents have been received in Application No						
Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). * See the attached detailed Office action for a list of the certified copies not received.						
14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).						
a) The translation of the foreign language provisional application has been received. 15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.						
Attachment(s)						
1) Notice of References Cited (PTO-892) 2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) Information Disclosure Statement(s) (PTO-1449) Paper No(s)	5) Notice of Informa	ary (PTO-413) Paper No(s) Il Patent Application (PTO-152)				



Claims 1-11, 13, 15-17, 19, 22, 26, 27, and 231 are currently pending.

This new restriction is in response to Paper #7, filed February 7, 2003. It appears that Applicants are not pleased that the restriction did not follow lack of unity practice accorded national stage applications. Upon perusal of the previous restriction requirement, it appears that the grouping of the claims should be made in accordance to 37 CFR 1.475:

37 CFR 1.475. Unity of invention before the International Searching Authority, the International Preliminary Examining Authority and during the national stage.

- (a) An international and a national stage application shall relate to one invention only or to a group of inventions so linked as to form a single general inventive concept ("requirement of unity of invention"). Where a group of inventions is claimed in an application, the requirement of unity of invention shall be fulfilled only when there is a technical relationship among those inventions involving one or more of the same or corresponding special technical features. The expression "special technical features" shall mean those technical features that define a contribution which each of the claimed inventions, considered as a whole, makes over the prior art.
- (b) An international or a national stage application containing claims to different categories of invention will be considered to have unity of invention if the claims are drawn only to one of the following combinations of categories:
 - (1) A product and a process specially adapted for the manufacture of said product; or
 - (2) A product and a process of use of said product; or
- (3) A product, a process specially adapted for the manufacture of the said product, and a use of the said product; or
- (4) A process and an apparatus or means specifically designed for carrying out the said process; or
- (5) A product, a process specially adapted for the manufacture of the said product, and an apparatus or means specifically designed for carrying out the said process.
- (c) If an application contains claims to more or less than one of the combinations of categories of invention set forth in paragraph (b) of this section, unity of invention might not be present.
- (d) If multiple products, processes of manufacture or uses are claimed, the first invention of the category first mentioned in the claims of the application and the first recited invention of ach of the other categories related thereto will be considered as the main invention in the claims, see PCT Article 17(3)(a) and § 1.476(c).
- (e) The determination whether a group of inventions is so linked as to form a single general inventive concept shall be made without regard to whether the inventions are claimed in separate claims or as alternatives within a single claim.

Upon perusal of Claim 1, the polypeptide having SEQ ID NO: 1 is claimed in many forms, including biologically active fragments of SEQ ID NO: 1. Note that glycine is a biologically active fragment of any polypeptide comprising a glycine amino acid; thus, as claimed, the polypeptide product that is a biologically active fragment of SEQ ID NO: 1 is not a "special"

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technical feature" that defines a contribution which each of the claimed inventions, considered as a whole, makes over the prior art; therefore, Group 1 drawn to polypeptide having SEQ ID NO: 1 does not have to follow the format of 37 CFR 1.475(b)(3), for example. However, in keeping with the spirit of lack of unity, and in anticipation of further defining biological activity as prosecution progresses, the Examiner has chosen to follow the format of 37 CFR 1.475(b)(3). Additionally, more than a single method of use of the polypeptide has been included in Group 1 because the search of those uses does not appear to present an undue search burden on the Examiner. However, if additional methods of use are presented, the search burden may be reconsidered.

Upon perusal of Table 2, the polypeptide having SEQ ID NO: 1 is thought to be a ring canal protein, the polypeptide having SEQ ID NO: 2 is thought to be a multi-drug resistance protein, the polypeptide having SEQ ID NO: 3 is thought to be a tricarboxylate carrier, and so on – Applicants are referred to Table 2. Therefore, the polypeptide sequences as set forth in Claim 1 are drawn to polypeptides having different structure and different function and these polypeptides will be considered to be separate patentably distinct products. In accordance with 37 CFR 1.475(e), this determination as to whether a group of inventions is so linked as to form a single general inventive concept is being made without regard as to whether the inventions are claimed as alternatives within a single claim.

The new lack of unity is as follows:

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted.

Group 1, claim(s) 1-7, 9, 11, 16, 17, 19, 22, and 26, drawn to a polypeptide having SEQ ID NO: 1, the method of making the polypeptide to include the polynucleotide having SEQ ID NO: 44,

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vector, host cell, and recombinant techniques, and methods of using the polypeptide in screening assays.

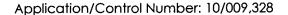
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Group 2, claim(s) 1, 2, 16, and 17, drawn to polypeptide having SEQ ID NO: 2.
Group 3, claim(s) 1, 2, 16, and 17, drawn to polypeptide having SEQ ID NO: 3.
Group 4, claim(s) 1, 2, 16, and 17, drawn to polypeptide having SEQ ID NO: 4.
Group 5, claim(s) 1, 2, 16, and 17, drawn to polypeptide having SEQ ID NO: 6.
Group 6, claim(s) 1, 2, 16, and 17, drawn to polypeptide having SEQ ID NO: 7.
Group 7, claim(s) 1, 2, 16, and 17, drawn to polypeptide having SEQ ID NO: 8.
Group 8, claim(s) 1, 2, 16, and 17, drawn to polypeptide having SEQ ID NO: 9.
Group 9, claim(s) 1, 2, 16, and 17, drawn to polypeptide having SEQ ID NO: 10.
Group 10, claim(s) 1, 2, 16, and 17, drawn to polypeptide having SEQ ID NO: 12.
Group 11, claim(s) 1, 2, 16, and 17, drawn to polypeptide having SEQ ID NO: 13.
Group 12, claim(s) 1, 2, 16, and 17, drawn to polypeptide having SEQ ID NO: 14.
Group 13, claim(s) 1, 2, 16, and 17, drawn to polypeptide having SEQ ID NO: 15.
Group 14, claim(s) 1, 2, 16, and 17, drawn to polypeptide having SEQ ID NO: 16.
Group 15, claim(s) 1, 2, 16, and 17, drawn to polypeptide having SEQ ID NO: 17.
Group 16, claim(s) 1, 2, 16, and 17, drawn to polypeptide having SEQ ID NO: 18.
Group 17, claim(s) 1, 2, 16, and 17, drawn to polypeptide having SEQ ID NO: 19.
Group 18, claim(s) 1, 2, 16, and 17, drawn to polypeptide having SEQ ID NO: 20.
Group 19, claim(s) 1, 2, 16, and 17, drawn to polypeptide having SEQ ID NO: 21.
Group 20, claim(s) 1, 2, 16, and 17, drawn to polypeptide having SEQ ID NO: 22.
Group 21, claim(s) 1, 2, 16, and 17, drawn to polypeptide having SEQ ID NO: 23.
Group 22, claim(s) 1, 2, 16, and 17, drawn to polypeptide having SEQ ID NO: 24.
Group 23, claim(s) 1, 2, 16, and 17, drawn to polypeptide having SEQ ID NO: 25.
Group 24, claim(s) 1, 2, 16, and 17, drawn to polypeptide having SEQ ID NO: 26.
Group 25, claim(s) 1, 2, 16, and 17, drawn to polypeptide having SEQ ID NO: 27.
Group 26, claim(s) 1, 2, 16, and 17, drawn to polypeptide having SEQ ID NO: 28.
Group 27, claim(s) 1, 2, 16, and 17, drawn to polypeptide having SEQ ID NO: 29.
Group 28, claim(s) 1, 2, 16, and 17, drawn to polypeptide having SEQ ID NO: 30.
Group 29, claim(s) 1, 2, 16, and 17, drawn to polypeptide having SEQ ID NO: 31.
Group 30, claim(s) 1, 2, 16, and 17, drawn to polypeptide having SEQ ID NO: 32.
Group 31, claim(s) 1, 2, 16, and 17, drawn to polypeptide having SEQ ID NO: 33.
Group 32, claim(s) 1, 2, 16, and 17, drawn to polypeptide having SEQ ID NO: 34.
Group 33, claim(s) 1, 2, 16, and 17, drawn to polypeptide having SEQ ID NO: 35.
Group 34, claim(s) 1, 2, 16, and 17, drawn to polypeptide having SEQ ID NO: 36.
Group 35, claim(s) 1, 2, 16, and 17, drawn to polypeptide having SEQ ID NO: 38.
Group 36, claim(s) 1, 2, 16, and 17, drawn to polypeptide having SEQ ID NO: 39.
Group 37, claim(s) 1, 2, 16, and 17, drawn to polypeptide having SEQ ID NO: 41.
Group 38, claim(s) 1, 2, 16, and 17, drawn to polypeptide having SEQ ID NO: 42.
Group 39, claim(s) 1, 2, 16, and 17, drawn to polypeptide having SEQ ID NO: 43.
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Group 40, claim(s) 3-7, 9, and 11, drawn to nucleic acid encoding polypeptide having SEQ ID NO: 2.

Group 41, claim(s) 3-7, 9, and 11, drawn to nucleic acid encoding polypeptide having SEQ ID NO: 3.

Group 42, claim(s) 3-7, 9, and 11, drawn to nucleic acid encoding polypeptide having SEQ ID $NO\cdot 4$

Group 43, claim(s) 3-7, 9, and 11, drawn to nucleic acid encoding polypeptide having SEQ ID NO: 6.



Group 44, claim(s) 3-7, 9, and 11, drawn to nucleic acid encoding polypeptide having SEQ ID NO: 7.

Group 45, claim(s) 3-7, 9, and 11, drawn to nucleic acid encoding polypeptide having SEQ ID NO: 8.

Group 46, claim(s) 3-7, 9, and 11, drawn to nucleic acid encoding polypeptide having SEQ ID NO: 9.

Group 47, claim(s) 3-7, 9, and 11, drawn to nucleic acid encoding polypeptide having SEQ ID NO: 10.

Group 48, claim(s) 3-7, 9, and 11, drawn to nucleic acid encoding polypeptide having SEQ ID NO: 12.

Group 49, claim(s) 3-7, 9, and 11, drawn to nucleic acid encoding polypeptide having SEQ ID NO: 13.

Group 50, claim(s) 3-7, 9, and 11, drawn to nucleic acid encoding polypeptide having SEQ ID NO: 14.

Group 51, claim(s) 3-7, 9, and 11, drawn to nucleic acid encoding polypeptide having SEQ ID NO: 15.

Group 52, claim(s) 3-7, 9, and 11, drawn to nucleic acid encoding polypeptide having SEQ ID NO: 16.

Group 53, claim(s) 3-7, 9, and 11, drawn to nucleic acid encoding polypeptide having SEQ ID NO: 17.

Group 54, claim(s) 3-7, 9, and 11, drawn to nucleic acid encoding polypeptide having SEQ ID NO: 18.

Group 55, claim(s) 3-7, 9, and 11, drawn to nucleic acid encoding polypeptide having SEQ ID NO: 19.

Group 56, claim(s) 3-7, 9, and 11, drawn to nucleic acid encoding polypeptide having SEQ ID NO: 20.

Group 57, claim(s) 3-7, 9, and 11, drawn to nucleic acid encoding polypeptide having SEQ ID NO: 21.

Group 58, claim(s) 3-7, 9, and 11, drawn to nucleic acid encoding polypeptide having SEQ ID NO: 22.

Group 59, claim(s) 3-7, 9, and 11, drawn to nucleic acid encoding polypeptide having SEQ ID NO: 23.

Group 60, claim(s) 3-7, 9, and 11, drawn to nucleic acid encoding polypeptide having SEQ ID NO: 24.

Group 61, claim(s) 3-7, 9, and 11, drawn to nucleic acid encoding polypeptide having SEQ ID NO: 25.

Group 62, claim(s) 3-7, 9, and 11, drawn to nucleic acid encoding polypeptide having SEQ ID NO: 26.

Group 63, claim(s) 3-7, 9, and 11, drawn to nucleic acid encoding polypeptide having SEQ ID NO: 27.

Group 64, claim(s) 3-7, 9, and 11, drawn to nucleic acid encoding polypeptide having SEQ ID NO: 28.

Group 65, claim(s) 3-7, 9, and 11, drawn to nucleic acid encoding polypeptide having SEQ ID NO: 29.

Group 66, claim(s) 3-7, 9, and 11, drawn to nucleic acid encoding polypeptide having SEQ ID NO: 30.

Group 67, claim(s) 3-7, 9, and 11, drawn to nucleic acid encoding polypeptide having SEQ ID NO: 31

Group 68, claim(s) 3-7, 9, and 11, drawn to nucleic acid encoding polypeptide having SEQ ID NO: 32.



Group 69, claim(s) 3-7, 9, and 11, drawn to nucleic acid encoding polypeptide having SEQ ID NO: 33.

Group 70, claim(s) 3-7, 9, and 11, drawn to nucleic acid encoding polypeptide having SEQ ID NO: 34.

Group 71, claim(s) 3-7, 9, and 11, drawn to nucleic acid encoding polypeptide having SEQ ID NO: 35.

Group 72, claim(s) 3-7, 9, and 11, drawn to nucleic acid encoding polypeptide having SEQ ID NO: 36

Group 73, claim(s) 3-7, 9, and 11, drawn to nucleic acid encoding polypeptide having SEQ ID NO: 38.

Group 74, claim(s) 3-7, 9, and 11, drawn to nucleic acid encoding polypeptide having SEQ ID NO: 39.

Group 75, claim(s) 3-7, 9, and 11, drawn to nucleic acid encoding polypeptide having SEQ ID NO: 41

Group 76, claim(s) 3-7, 9, and 11, drawn to nucleic acid encoding polypeptide having SEQ ID NO: 42.

Group 77, claim(s) 3-7, 9, and 11, drawn to nucleic acid encoding polypeptide having SEQ ID NO: 43.

Group 78, claim(s) 8, drawn to transgenic organism comprising nucleic acid encoding polypeptide having SEQ ID NO: 1.

Group 79, claim(s) 8, drawn to transgenic organism comprising nucleic acid encoding polypeptide having SEQ ID NO: 2.

Group 80, claim(s) 8, drawn to transgenic organism comprising nucleic acid encoding polypeptide having SEQ ID NO: 3.

Group 81, claim(s) 8, drawn to transgenic organism comprising nucleic acid encoding polypeptide having SEQ ID NO: 4.

Group 82, claim(s) 8, drawn to transgenic organism comprising nucleic acid encoding polypeptide having SEQ ID NO: 6.

Group 83, claim(s) 8, drawn to transgenic organism comprising nucleic acid encoding polypeptide having SEQ ID NO: 7.

Group 84, claim(s) 8, drawn to transgenic organism comprising nucleic acid encoding polypeptide having SEQ ID NO: 8.

Group 85, claim(s) 8, drawn to transgenic organism comprising nucleic acid encoding polypeptide having SEQ ID NO: 9.

Group 86, claim(s) 8, drawn to transgenic organism comprising nucleic acid encoding polypeptide having SEQ ID NO: 10.

Group 87, claim(s) 8, drawn to transgenic organism comprising nucleic acid encoding polypeptide having SEQ ID NO: 12.

Group 88, claim(s) 8, drawn to transgenic organism comprising nucleic acid encoding polypeptide having SEQ ID NO: 13.

Group 89, claim(s) 8, drawn to transgenic organism comprising nucleic acid encoding polypeptide having SEQ ID NO: 14.

Group 90, claim(s) 8, drawn to transgenic organism comprising nucleic acid encoding polypeptide having SEQ ID NO: 15.

Group 91, claim(s) 8, drawn to transgenic organism comprising nucleic acid encoding polypeptide having SEQ ID NO: 16.

Group 92, claim(s) 8, drawn to transgenic organism comprising nucleic acid encoding polypeptide having SEQ ID NO: 17.

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Group 93, claim(s) 8, drawn to transgenic organism comprising nucleic acid encoding polypeptide having SEQ ID NO: 18.

Group 94, claim(s) 8, drawn to transgenic organism comprising nucleic acid encoding polypeptide having SEQ ID NO: 19.

Group 95, claim(s) 8, drawn to transgenic organism comprising nucleic acid encoding polypeptide having SEQ ID NO: 20.

Group 96, claim(s) 8, drawn to transgenic organism comprising nucleic acid encoding polypeptide having SEQ ID NO: 21.

Group 97, claim(s) 8, drawn to transgenic organism comprising nucleic acid encoding polypeptide having SEQ ID NO: 22.

Group 98, claim(s) 8, drawn to transgenic organism comprising nucleic acid encoding polypeptide having SEQ ID NO: 23.

Group 99, claim(s) 8, drawn to transgenic organism comprising nucleic acid encoding polypeptide having SEQ ID NO: 24.

Group 100, claim(s) 8, drawn to transgenic organism comprising nucleic acid encoding polypeptide having SEQ ID NO: 25.

Group 101, claim(s) 8, drawn to transgenic organism comprising nucleic acid encoding polypeptide having SEQ ID NO: 26.

Group 102, claim(s) 8, drawn to transgenic organism comprising nucleic acid encoding polypeptide having SEQ ID NO: 27.

Group 103, claim(s) 8, drawn to transgenic organism comprising nucleic acid encoding polypeptide having SEQ ID NO: 28.

Group 104, claim(s) 8, drawn to transgenic organism comprising nucleic acid encoding polypeptide having SEQ ID NO: 29.

Group 104, claim(s) 8, drawn to transgenic organism comprising nucleic acid encoding polypeptide having SEQ ID NO: 30.

Group 106, claim(s) 8, drawn to transgenic organism comprising nucleic acid encoding polypeptide having SEQ ID NO: 31.

Group 107, claim(s) 8, drawn to transgenic organism comprising nucleic acid encoding polypeptide having SEQ ID NO: 32.

Group 108, claim(s) 8, drawn to transgenic organism comprising nucleic acid encoding polypeptide having SEQ ID NO: 33.

Group 109, claim(s) 8, drawn to transgenic organism comprising nucleic acid encoding polypeptide having SEQ ID NO: 34.

Group 110, claim(s) 8, drawn to transgenic organism comprising nucleic acid encoding polypeptide having SEQ ID NO: 35.

Group 111, claim(s) 8, drawn to transgenic organism comprising nucleic acid encoding polypeptide having SEQ ID NO: 36.

Group 112, claim(s) 8, drawn to transgenic organism comprising nucleic acid encoding polypeptide having SEQ ID NO: 38.

Group 113, claim(s) 8, drawn to transgenic organism comprising nucleic acid encoding polypeptide having SEQ ID NO: 39.

Group 114, claim(s) 8, drawn to transgenic organism comprising nucleic acid encoding polypeptide having SEQ ID NO: 41.

Group 115, claim(s) 8, drawn to transgenic organism comprising nucleic acid encoding polypeptide having SEQ ID NO: 42.

Group 116, claim(s) 8, drawn to transgenic organism comprising nucleic acid encoding polypeptide having SEQ ID NO: 43.

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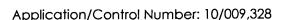
Group 117, claim(s) 10, drawn to antibody against polypeptide having SEQ ID NO: 1. Group 118, claim(s) 10, drawn to antibody against polypeptide having SEQ ID NO: 2. Group 119, claim(s)10, drawn to antibody against polypeptide having SEQ ID NO: 3. Group 120, claim(s) 10, drawn to antibody against polypeptide having SEQ ID NO: 4. Group 121, claim(s) 10, drawn to antibody against polypeptide having SEQ ID NO: 6. Group 122, claim(s) 10, drawn to antibody against polypeptide having SEQ ID NO: 7. Group 123, claim(s) 10, drawn to antibody against polypeptide having SEQ ID NO: 8. Group 124, claim(s) 10, drawn to antibody against polypeptide having SEQ ID NO: 9. Group 125, claim(s) 10, drawn to antibody against polypeptide having SEQ ID NO: 10. Group 126, claim(s) 10, drawn to antibody against polypeptide having SEQ ID NO: 12. Group 127, claim(s) 10, drawn to antibody against polypeptide having SEQ ID NO: 13. Group 128, claim(s) 10, drawn to antibody against polypeptide having SEQ ID NO: 14. Group 129, claim(s) 10, drawn to antibody against polypeptide having SEQ ID NO: 15. Group 130, claim(s) 10, drawn to antibody against polypeptide having SEQ ID NO: 16. Group 131, claim(s) 10, drawn to antibody against polypeptide having SEQ ID NO: 17. Group 132, claim(s) 10, drawn to antibody against polypeptide having SEQ ID NO: 18. Group 133, claim(s) 10, drawn to antibody against polypeptide having SEQ ID NO: 19. Group 134, claim(s) 10, drawn to antibody against polypeptide having SEQ ID NO: 20. Group 135, claim(s) 10, drawn to antibody against polypeptide having SEQ ID NO: 21. Group 136, claim(s) 10, drawn to antibody against polypeptide having SEQ ID NO: 22. Group 137, claim(s) 10, drawn to antibody against polypeptide having SEQ ID NO: 23. Group 138, claim(s) 10, drawn to antibody against polypeptide having SEQ ID NO: 24. Group 139, claim(s) 10, drawn to antibody against polypeptide having SEQ ID NO: 25. Group 140, claim(s) 10, drawn to antibody against polypeptide having SEQ ID NO: 26. Group 141, claim(s) 10, drawn to antibody against polypeptide having SEQ ID NO: 27. Group 142, claim(s) 10, drawn to antibody against polypeptide having SEQ ID NO: 28. Group 143, claim(s) 10, drawn to antibody against polypeptide having SEQ ID NO: 29. Group 144, claim(s) 10, drawn to antibody against polypeptide having SEQ ID NO: 30. Group 106, claim(s) 10, drawn to antibody against polypeptide having SEQ ID NO: 31. Group 145, claim(s) 10, drawn to antibody against polypeptide having SEQ ID NO: 32. Group 146, claim(s) 10, drawn to antibody against polypeptide having SEQ ID NO: 33. Group 147, claim(s) 10, drawn to antibody against polypeptide having SEQ ID NO: 34. Group 148, claim(s) 10, drawn to antibody against polypeptide having SEQ ID NO: 35. Group 149, claim(s) 10, drawn to antibody against polypeptide having SEQ ID NO: 36. Group 150, claim(s) 10, drawn to antibody against polypeptide having SEQ ID NO: 38. Group 151, claim(s) 10, drawn to antibody against polypeptide having SEQ ID NO: 39. Group 152, claim(s) 10, drawn to antibody against polypeptide having SEQ ID NO: 41. Group 153, claim(s) 10, drawn to antibody against polypeptide having SEQ ID NO: 42. Group 154, claim(s) 10, drawn to antibody against polypeptide having SEQ ID NO: 43.

Group 155, claim(s) 13 and 15, drawn to methods of detecting nucleic acid encoding polypeptide having SEQ ID NO: 1.

Group 156, claim(s) 13 and 15, drawn to methods of detecting nucleic acid encoding polypeptide having SEQ ID NO: 2.

Group 157, claim(s) 13 and 15, drawn to methods of detecting nucleic acid encoding polypeptide having SEQ ID NO: 3.

Group 158, claim(s) 13 and 15, drawn to methods of detecting nucleic acid encoding polypeptide having SEQ ID NO: 4.



Group 159, claim(s) 13 and 15, drawn to methods of detecting nucleic acid encoding polypeptide having SEQ ID NO: 6.

Group 160, claim(s) 13 and 15, drawn to methods of detecting nucleic acid encoding polypeptide having SEQ ID NO: 7.

Group 161, claim(s) 13 and 15, drawn to methods of detecting nucleic acid encoding polypeptide having SEQ ID NO: 8.

Group 162, claim(s) 13 and 15, drawn to methods of detecting nucleic acid encoding polypeptide having SEQ ID NO: 9.

Group 163, claim(s) 13 and 15, drawn to methods of detecting nucleic acid encoding polypeptide having SEQ ID NO: 10.

Group 164, claim(s) 13 and 15, drawn to methods of detecting nucleic acid encoding polypeptide having SEQ ID NO: 12.

Group 165, claim(s) 13 and 15, drawn to methods of detecting nucleic acid encoding polypeptide having SEQ ID NO: 13.

Group 166, claim(s) 13 and 15, drawn to methods of detecting nucleic acid encoding polypeptide having SEQ ID NO: 14.

Group 167, claim(s) 13 and 15, drawn to methods of detecting nucleic acid encoding polypeptide having SEQ ID NO: 15.

Group 168, claim(s) 13 and 15, drawn to methods of detecting nucleic acid encoding polypeptide having SEQ ID NO: 16.

Group 169, claim(s) 13 and 15, drawn to methods of detecting nucleic acid encoding polypeptide having SEQ ID NO: 17.

Group 170, claim(s) 13 and 15, drawn to methods of detecting nucleic acid encoding polypeptide having SEQ ID NO: 18.

Group 171, claim(s) 13 and 15, drawn to methods of detecting nucleic acid encoding polypeptide having SEQ ID NO: 19.

Group 172, claim(s) 13 and 15, drawn to methods of detecting nucleic acid encoding polypeptide having SEQ ID NO: 20.

Group 173, claim(s) 13 and 15, drawn to methods of detecting nucleic acid encoding polypeptide having SEQ ID NO: 21.

Group 174, claim(s) 13 and 15, drawn to methods of detecting nucleic acid encoding polypeptide having SEQ ID NO: 22.

Group 175, claim(s) 13 and 15, drawn to methods of detecting nucleic acid encoding polypeptide having SEQ ID NO: 24.

Group 177, claim(s) 13 and 15, drawn to methods of detecting nucleic acid encoding to polypeptide having SEQ ID NO: 25.

Group 178, claim(s) 13 and 15, drawn to methods of detecting nucleic acid encoding polypeptide having SEQ ID NO: 26.

Group 179, claim(s) 13 and 15, drawn to methods of detecting nucleic acid encoding polypeptide having SEQ ID NO: 27.

Group 180, claim(s) 13 and 15, drawn to methods of detecting nucleic acid encoding polypeptide having SEQ ID NO: 28.

Group 181, claim(s) 13 and 15, drawn to methods of detecting nucleic acid encoding polypeptide having SEQ ID NO: 29.

Group 182, claim(s) 13 and 15, drawn to methods of detecting nucleic acid encoding polypeptide having SEQ ID NO: 30.

Group 183, claim(s) 13 and 15, drawn to methods of detecting nucleic acid encoding polypeptide having SEQ ID NO: 31.

Group 184, claim(s) 13 and 15, drawn to methods of detecting nucleic acid encoding polypeptide having SEQ ID NO: 32.



Group 185, claim(s) 13 and 15, drawn to methods of detecting nucleic acid encoding polypeptide having SEQ ID NO: 33.

Group 186, claim(s) 13 and 15, drawn to methods of detecting nucleic acid encoding polypeptide having SEQ ID NO: 34.

Group 187, claim(s) 13 and 15, drawn to methods of detecting nucleic acid encoding polypeptide having SEQ ID NO: 35.

Group 188, claim(s) 13 and 15, drawn to methods of detecting nucleic acid encoding polypeptide having SEQ ID NO: 36.

Group 189, claim(s) 13 and 15, drawn to methods of detecting nucleic acid encoding polypeptide having SEQ ID NO: 38.

Group 190, claim(s) 13 and 15, drawn to methods of detecting nucleic acid encoding polypeptide having SEQ ID NO: 39.

Group 191, claim(s) 13 and 15, drawn to methods of detecting nucleic acid encoding polypeptide having SEQ ID NO: 41.

Group 192, claim(s) 13 and 15, drawn to methods of detecting nucleic acid encoding polypeptide having SEQ ID NO: 42.

Group 193, claim(s) 13 and 15, drawn to methods of detecting nucleic acid encoding polypeptide having SEQ ID NO: 43.

Group 194, claim(s) 27, drawn to method of altering the expression of nucleic acid encoding polypeptide having SEQ ID NO: 1.

Group 195, claim(s) 27, drawn to method of altering the expression of nucleic acid encoding polypeptide having SEQ ID NO: 2.

Group 196, claim(s) 27, drawn to method of altering the expression of nucleic acid encoding polypeptide having SEQ ID NO: 3.

Group 197, claim(s) 27, drawn to method of altering the expression of nucleic acid encoding polypeptide having SEQ ID NO: 4.

Group 198, claim(s) 27, drawn to method of altering the expression of nucleic acid encoding polypeptide having SEQ ID NO: 6.

Group 199, claim(s) 27, drawn to method of altering the expression of nucleic acid encoding polypeptide having SEQ ID NO: 7.

Group 200, claim(s) 27, drawn to method of altering the expression of nucleic acid encoding polypeptide having SEQ ID NO: 8.

Group 201, claim(s) 27, drawn to method of altering the expression of nucleic acid encoding polypeptide having SEQ ID NO: 9.

Group 202, claim(s) 27, drawn to method of altering the expression of nucleic acid encoding polypeptide having SEQ ID NO: 10.

Group 203, claim(s) 27, drawn to method of altering the expression of nucleic acid encoding polypeptide having SEQ ID NO: 12.

Group 204, claim(s) 27, drawn to method of altering the expression of nucleic acid encoding polypeptide having SEQ ID NO: 13.

Group 205, claim(s) 27, drawn to method of altering the expression of nucleic acid encoding polypeptide having SEQ ID NO: 14.

Group 206, claim(s) 27, drawn to method of altering the expression of nucleic acid encoding polypeptide having SEQ ID NO: 15.

Group 207, claim(s) 27, drawn to method of altering the expression of nucleic acid encoding polypeptide having SEQ ID NO: 16.

Group 208, claim(s) 27, drawn to method of altering the expression of nucleic acid encoding polypeptide having SEQ ID NO: 17.

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Group 209, claim(s) 27, drawn to method of altering the expression of nucleic acid encoding polypeptide having SEQ ID NO: 18.

Group 210, claim(s) 27, drawn to method of altering the expression of nucleic acid encoding polypeptide having SEQ ID NO: 19.

Group 211, claim(s) 27, drawn to method of altering the expression of nucleic acid encoding polypeptide having SEQ ID NO: 20.

Group 212, claim(s) 27, drawn to method of altering the expression of nucleic acid encoding polypeptide having SEQ ID NO: 21.

Group 213, claim(s) 27, drawn to method of altering the expression of nucleic acid encoding polypeptide having SEQ ID NO: 22.

Group 214, claim(s) 27, drawn to method of altering the expression of nucleic acid encoding polypeptide having SEQ ID NO: 24.

Group 215, claim(s) 27, drawn to method of altering the expression of nucleic acid encoding t polypeptide having SEQ ID NO: 25.

Group 216, claim(s) 27, drawn to method of altering the expression of nucleic acid encoding polypeptide having SEQ ID NO: 26.

Group 217, claim(s) 27, drawn to method of altering the expression of nucleic acid encoding polypeptide having SEQ ID NO: 27.

Group 218, claim(s) 27, drawn to method of altering the expression of nucleic acid encoding polypeptide having SEQ ID NO: 28.

Group 219, claim(s) 27, drawn to method of altering the expression of nucleic acid encoding polypeptide having SEQ ID NO: 29.

Group 220, claim(s) 27, drawn to method of altering the expression of nucleic acid encoding polypeptide having SEQ ID NO: 30.

Group 221, claim(s) 27, drawn to method of altering the expression of nucleic acid encoding polypeptide having SEQ ID NO: 31.

Group 222, claim(s) 27, drawn to method of altering the expression of nucleic acid encoding polypeptide having SEQ ID NO: 32.

Group 223, claim(s) 27, drawn to method of altering the expression of nucleic acid encoding polypeptide having SEQ ID NO: 33.

Group 224, claim(s) 27, drawn to method of altering the expression of nucleic acid encoding polypeptide having SEQ ID NO: 34.

Group 225, claim(s) 27, drawn to method of altering the expression of nucleic acid encoding polypeptide having SEQ ID NO: 35.

Group 226, claim(s) 27, drawn to method of altering the expression of nucleic acid encoding polypeptide having SEQ ID NO: 36.

Group 227, claim(s) 27, drawn to method of altering the expression of nucleic acid encoding polypeptide having SEQ ID NO: 38.

Group 228, claim(s) 27, drawn to method of altering the expression of nucleic acid encoding polypeptide having SEQ ID NO: 39.

Group 229, claim(s) 27, drawn to method of altering the expression of nucleic acid encoding polypeptide having SEQ ID NO: 41.

Group 230, claim(s) 27, drawn to method of altering the expression of nucleic acid encoding polypeptide having SEQ ID NO: 42.

Group 231, claim(s) 27, drawn to method of altering the expression of nucleic acid encoding polypeptide having SEQ ID NO: 43.

Group 232, claim(s) 231, drawn to method of assessing toxicity via use of nucleic acid encoding polypeptide having SEQ ID NO: 1.

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Group 233, claim(s) 231, drawn to method of assessing toxicity via use of nucleic acid encoding polypeptide having SEQ ID NO: 2.

Group 234, claim(s) 231, drawn to method of assessing toxicity via use of nucleic acid encoding polypeptide having SEQ ID NO: 3.

Group 235, claim(s) 231, drawn to method of assessing toxicity via use of nucleic acid encoding polypeptide having SEQ ID NO: 4.

Group 236, claim(s) 231, drawn to method of assessing toxicity via use of nucleic acid encoding polypeptide having SEQ ID NO: 6.

Group 237, claim(s) 231, drawn to method of assessing toxicity via use of nucleic acid encoding polypeptide having SEQ ID NO: 7.

Group 238, claim(s) 231, drawn to method of assessing toxicity via use of nucleic acid encoding polypeptide having SEQ ID NO: 8.

Group 239, claim(s) 231, drawn to method of assessing toxicity via use of nucleic acid encoding polypeptide having SEQ ID NO: 9.

Group 240, claim(s) 231, drawn to method of assessing toxicity via use of nucleic acid encoding polypeptide having SEQ ID NO: 10.

Group 241, claim(s) 231, drawn to method of assessing toxicity via use of nucleic acid encoding polypeptide having SEQ ID NO: 12.

Group 242, claim(s) 231, drawn to method of assessing toxicity via use of nucleic acid encoding polypeptide having SEQ ID NO: 13.

Group 243, claim(s) 231, drawn to method of assessing toxicity via use of nucleic acid encoding polypeptide having SEQ ID NO: 14.

Group 244, claim(s) 231, drawn to method of assessing toxicity via use of nucleic acid encoding polypeptide having SEQ ID NO: 15.

Group 245, claim(s) 231, drawn to method of assessing toxicity via use of nucleic acid encoding polypeptide having SEQ ID NO: 16.

Group 246, claim(s) 231, drawn to method of assessing toxicity via use of nucleic acid encoding polypeptide having SEQ ID NO: 17.

Group 247, claim(s) 231, drawn to method of assessing toxicity via use of nucleic acid encoding polypeptide having SEQ ID NO: 18.

Group 248, claim(s) 231, drawn to method of assessing toxicity via use of nucleic acid encoding polypeptide having SEQ ID NO: 19.

Group 249, claim(s) 231, drawn to method of assessing toxicity via use of nucleic acid encoding polypeptide having SEQ ID NO: 20.

Group 250, claim(s) 231, drawn to method of assessing toxicity via use of nucleic acid encoding polypeptide having SEQ ID NO: 21.

Group 251, claim(s) 231, drawn to method of assessing toxicity via use of nucleic acid encoding polypeptide having SEQ ID NO: 22.

Group 252, claim(s) 231, drawn to method of assessing toxicity via use of nucleic acid encoding polypeptide having SEQ ID NO: 24.

Group 253, claim(s) 231, drawn to method of assessing toxicity via use of nucleic acid encoding t polypeptide having SEQ ID NO: 25.

Group 254, claim(s) 231, drawn to method of assessing toxicity via use of nucleic acid encoding polypeptide having SEQ ID NO: 26.

Group 255, claim(s) 231, drawn to method of assessing toxicity via use of nucleic acid encoding polypeptide having SEQ ID NO: 27.

Group 256, claim(s) 231, drawn to method of assessing toxicity via use of nucleic acid encoding polypeptide having SEQ ID NO: 28.

Group 257, claim(s) 231, drawn to method of assessing toxicity via use of nucleic acid encoding polypeptide having SEQ ID NO: 29.

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Group 258, claim(s) 231, drawn to method of assessing toxicity via use of nucleic acid encoding polypeptide having SEQ ID NO: 30.

Group 259, claim(s) 231, drawn to method of assessing toxicity via use of nucleic acid encoding polypeptide having SEQ ID NO: 31.

Group 260, claim(s) 231, drawn to method of assessing toxicity via use of nucleic acid encoding polypeptide having SEQ ID NO: 32.

Group 261, claim(s) 231, drawn to method of assessing toxicity via use of nucleic acid encoding polypeptide having SEQ ID NO: 33.

Group 262, claim(s) 231, drawn to method of assessing toxicity via use of nucleic acid encoding polypeptide having SEQ ID NO: 34.

Group 263, claim(s) 231, drawn to method of assessing toxicity via use of nucleic acid encoding polypeptide having SEQ ID NO: 35.

Group 264, claim(s) 231, drawn to method of assessing toxicity via use of nucleic acid encoding polypeptide having SEQ ID NO: 36.

Group 265, claim(s) 231, drawn to method of assessing toxicity via use of nucleic acid encoding polypeptide having SEQ ID NO: 38.

Group 266, claim(s) 231, drawn to method of assessing toxicity via use of nucleic acid encoding polypeptide having SEQ ID NO: 39.

Group 267, claim(s) 231, drawn to method of assessing toxicity via use of nucleic acid encoding polypeptide having SEQ ID NO: 41.

Group 268, claim(s) 231, drawn to method of assessing toxicity via use of nucleic acid encoding polypeptide having SEQ ID NO: 42.

Group 269, claim(s) 231, drawn to method of assessing toxicity via use of nucleic acid encoding polypeptide having SEQ ID NO: 43.

Group 270, claim(s) 19, 22, and 26, drawn to method of screening agonists and antagonists of polypeptide having SEQ ID NO: 2.

Group 271, claim(s) 19, 22, and 26, drawn to method of screening agonists and antagonists of polypeptide having SEQ ID NO: 3.

Group 272, claim(s) 19, 22, and 26, drawn to method of screening agonists and antagonists of polypeptide having SEQ ID NO: 4.

Group 273, claim(s) 19, 22, and 26, drawn to method of screening agonists and antagonists of polypeptide having SEQ ID NO: 6.

Group 274, claim(s) 19, 22, and 26, drawn to method of screening agonists and antagonists of polypeptide having SEQ ID NO: 7.

Group 275, claim(s) 19, 22, and 26, drawn to method of screening agonists and antagonists of polypeptide having SEQ ID NO: 8.

Group 276, claim(s) 19, 22, and 26, drawn to method of screening agonists and antagonists of polypeptide having SEQ ID NO: 9.

Group 277, claim(s) 19, 22, and 26, drawn to method of screening agonists and antagonists of polypeptide having SEQ ID NO: 10.

Group 278, claim(s) 19, 22, and 26, drawn to method of screening agonists and antagonists of polypeptide having SEQ ID NO: 12.

Group 279, claim(s) 19, 22, and 26, drawn to method of screening agonists and antagonists of polypeptide having SEQ ID NO: 13.

Group 280, claim(s) 19, 22, and 26, drawn to method of screening agonists and antagonists of polypeptide having SEQ ID NO: 14.

Group 281, claim(s) 19, 22, and 26, drawn to method of screening agonists and antagonists of polypeptide having SEQ ID NO: 15.

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Group 282, claim(s) 19, 22, and 26, drawn to method of screening agonists and antagonists of polypeptide having SEQ ID NO: 16.

Group 283, claim(s) 19, 22, and 26, drawn to method of screening agonists and antagonists of polypeptide having SEQ ID NO: 17.

Group 284, claim(s) 19, 22, and 26, drawn to method of screening agonists and antagonists of polypeptide having SEQ ID NO: 18.

Group 285, claim(s) 19, 22, and 26, drawn to method of screening agonists and antagonists of polypeptide having SEQ ID NO: 19.

Group 286, claim(s) 19, 22, and 26, drawn to method of screening agonists and antagonists of polypeptide having SEQ ID NO: 20.

Group 287, claim(s) 19, 22, and 26, drawn to method of screening agonists and antagonists of polypeptide having SEQ ID NO: 21.

Group 288, claim(s) 19, 22, and 26, drawn to method of screening agonists and antagonists of polypeptide having SEQ ID NO: 22.

Group 289, claim(s) 19, 22, and 26, drawn to method of screening agonists and antagonists of polypeptide having SEQ ID NO: 24.

Group 290, claim(s) 19, 22, and 26, drawn to method of screening agonists and antagonists of polypeptide having SEQ ID NO: 25.

Group 291, claim(s) 19, 22, and 26, drawn to method of screening agonists and antagonists of polypeptide having SEQ ID NO: 26.

Group 292, claim(s) 19, 22, and 26, drawn to method of screening agonists and antagonists of polypeptide having SEQ ID NO: 27.

Group 293, claim(s) 19, 22, and 26, drawn to method of screening agonists and antagonists of polypeptide having SEQ ID NO: 28.

Group 294, claim(s) 19, 22, and 26, drawn to method of screening agonists and antagonists of polypeptide having SEQ ID NO: 29.

Group 295, claim(s) 19, 22, and 26, drawn to method of screening agonists and antagonists of polypeptide having SEQ ID NO: 30.

Group 296, claim(s) 19, 22, and 26, drawn to method of screening agonists and antagonists of polypeptide having SEQ ID NO: 31.

Group 297, claim(s) 19, 22, and 26, drawn to method of screening agonists and antagonists of polypeptide having SEQ ID NO: 32.

Group 298, claim(s) 19, 22, and 26, drawn to method of screening agonists and antagonists of polypeptide having SEQ ID NO: 33.

Group 299, claim(s) 19, 22, and 26, drawn to method of screening agonists and antagonists of polypeptide having SEQ ID NO: 34.

Group 300, claim(s) 19, 22, and 26, drawn to method of screening agonists and antagonists of polypeptide having SEQ ID NO: 35.

Group 301, claim(s) 19, 22, and 26, drawn to method of screening agonists and antagonists of polypeptide having SEQ ID NO: 36.

Group 302, claim(s) 19, 22, and 26, drawn to method of screening agonists and antagonists of polypeptide having SEQ ID NO: 38.

Group 303, claim(s) 19, 22, and 26, drawn to method of screening agonists and antagonists of polypeptide having SEQ ID NO: 39.

 Group 304, claim(s) 19, 22, and 26, drawn to method of screening agonists and antagonists of polypeptide having SEQ ID NO: 41.

Group 305, claim(s) 19, 22, and 26, drawn to method of screening agonists and antagonists of polypeptide having SEQ ID NO: 42.

Group 306, claim(s) 19, 22, and 26, drawn to method of screening agonists and antagonists of polypeptide having SEQ ID NO: 43.

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The inventions listed as Groups 1-306 do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: As set forth above, upon perusal of Table 2, the polypeptide having SEQ ID NO: 1 is thought to be a ring canal protein, the polypeptide having SEQ ID NO: 2 is thought to be a multi-drug resistance protein, the polypeptide having SEQ ID NO: 3 is thought to be a tricarboxylate carrier, and so on – Applicants are referred to Table 2. Therefore, the polypeptide sequences as set forth in Claim 1 are drawn to polypeptides having different structure and different function and these polypeptides will be considered to be separate patentably distinct products. In accordance with 37 CFR 1.475(e), this determination as to whether a group of inventions is so linked as to form a single general inventive concept is being made without regard as to whether the inventions are claimed as alternatives within a single claim.

Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

Applicants are requested to amend the claims to delete reference to non-elected sequences/products.

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Karen Cochrane Carlson, Ph.D. whose telephone number is 703-308-0034. The examiner can normally be reached on 7:00 AM - 4:00 PM, off alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dr. Christopher Low can be reached on 703-308-2329. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-4242 for regular communications and 703-308-4242 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1235.

May 9, 2003

KAREN COCHRANE CARLSON, PH.D PRIMARY FYAMINER

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